

## **SALEEN®/VORTECH® INTAKE MANIFOLD**

### **REMOVAL:**

1. Disconnect the following:
  - Throttle linkage
  - Engine coolant temperature (ECT) sensor
  - Intake air temperature (IAT) sensor
  - Throttle position sensor (TPS)
  - Exhaust gas recirculation (EGR) terminal and vacuum
  - Main line to vacuum tree
  - Fuel regulator vacuum
  - Climate control vacuum cluster
  - Charcoal canister vacuum sensor line
2. Remove PCV line from manifold base.
3. Drain the coolant from the radiator.
4. Remove the throttle body inlet hose and EGR coolant lines.
5. Remove the (4) four #15 torx fasteners holding down the manifold cover plate.
6. Disassemble the upper and lower manifolds by removing the six (6) 5/16-18 bolts.
7. Disconnect and remove the heater core pipes from the manifold mounting bolt, heater hoses at firewall, thermostat housing and water pump.
8. Disconnect the fuel supply and return lines with a spring-lock disconnect tool.
9. Remove the fuel injector terminals at each injector.
10. Remove the fuel rail and injectors.
11. Remove the radiator hose at the thermostat housing.
12. Remove the lower intake manifold. Transfer the thermostat housing and all of the existing fittings and sensors from the old manifold to the Saleen/Vortech intake.



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### **LOWER MANIFOLD INSTALLATION:**

1. Clean the cylinder head mounting surfaces with a flat scraper taking care not to gouge the sealing surfaces. Use caution so that no debris falls into the head ports or the lifter valley.
2. Clean all mating surfaces with acetone or similar cleaning solvent.
3. Apply Gasgacinch® adhesive to the cylinder head side of the intake gasket and to the head surface where the manifold seals. Let dry for 10-15 minutes. Mount intake manifold gasket to the head, lining up the ports to the gasket.
4. Apply a large bead of silicone on the engine block where both ends of the manifold rest (approximately 1/2" high from the left side intake gasket to the right side intake gasket). Wait approximately 15-20 minutes to let a skin form on the silicone.
5. Lower the manifold down onto the engine, lining up the ports using the bolts as a guide.
6. Install the bolts in the sequence as shown in the graphic on the next page. Torque to 22 ft./lbs.

## UPPER MANIFOLD INSTALLATION:

7. Install the EGR nut in the lower manifold.

**NOTE: Apply hi-temp anti-seize lube to all threads on EGR assembly.**

8. Thread the steel 45° compression fitting into the EGR nut, with the 45° fitting pointing to the rear of the intake.
9. Thread the straight compression fitting into the upper manifold. (Make sure the fitting is well into the threads.)
10. Remove the nuts and ferrules from both the compression fittings.
11. Slide the short end of the EGR tube into one of the nut and ferrule assemblies. Slide the nut and ferrule up tight against the weld joint. Place the short end of the EGR tube, with the nut and ferrule attached, into the 45° fitting in the lower manifold.
12. With the EGR tube seated all of the way down into the 45° fitting, thread the nut down just until snug. Rotate the compression fitting and EGR tube until the tube points straight up at a 90° angle as viewed from the front and side.
13. Slide the remaining nut and ferrule (threads up) down onto the top of the EGR tube.
14. Reinstall the fuel injectors and the fuel rail using a small amount of oil on the o-rings for ease of installation. Reattach the fuel injector clips. Reconnect the supply and return fuel lines to the injectors.
15. Reconnect the heater core and pipe to the corresponding hoses.
16. Install the supplied three (3) studs into the lower manifold at the location shown in the graphic on the previous page.
17. Place the plenum gasket onto the lower manifold.
18. Lower the upper intake manifold down onto the lower manifold using the studs and EGR tube as a guide.
19. Install all bolts, washers and nuts.
20. Tighten both the upper and lower EGR compression fittings.
21. Using pipe sealant, attach the supplied vacuum tree to the 3/8" NPT hole in the rear of the upper manifold. Thread the 3/8" barb into the hole in the front of the manifold.
22. Reattach the EGR spacer, throttle body, EGR coolant lines and throttle linkage.
23. Reconnect the TPS sensor, EGR sensor and vacuum, ECT sensor, IAT sensor, air inlet hose, PCV hose, main vacuum supply line, fuel regulator vacuum line and the climate control vacuum cluster.
24. Change the engine oil to remove any debris or coolant.
25. Recheck all lines and connections. Let the engine run for a few minutes to check for any coolant or oil leaks around the base of the manifold.

## FASTENER LOCATION/TORQUE SEQUENCE

- A. Following the numbered sequence, tighten the bolts just until snug.
- B. In two steps, torque the bolts to 10 ft./lbs., then to 20 ft. lbs.
- C. The last step is to torque to 22 ft./lbs. Follow the sequence as many times as needed to achieve 22 ft./lbs. of torque on all of the bolts.

